

Incidence and Mortality Rate Trends

Cancers of the head and neck, which include cancers of the buccal cavity, head and neck subset, larynx, pharynx, thyroid, salivary glands, and nose/nasal passages, account for approximately 6 percent of all malignancies in the United States. Whites currently have the highest incidence rates of head and neck cancers, although mortality is still highest in African Americans.

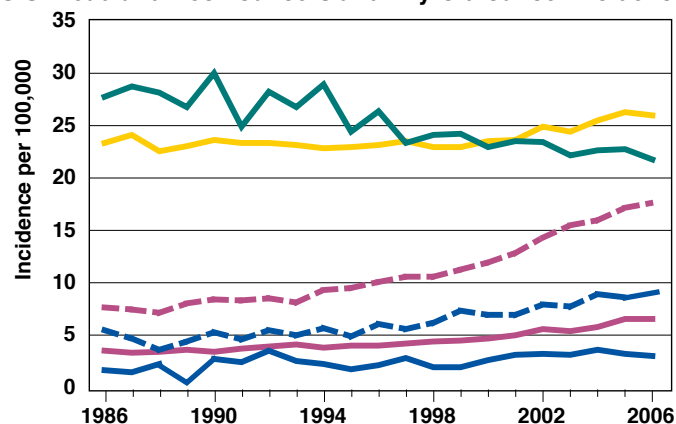
The incidence of thyroid cancer has increased in all races and in both males and females in the past two decades. Thyroid cancer incidence is almost three times higher in females than in males and more than two times higher in whites than in African Americans. However, despite the increase in incidence, mortality rates have remained very low.

It is estimated that approximately \$3.2 billion¹ is spent in the United States each year on treatment of head and neck cancers.

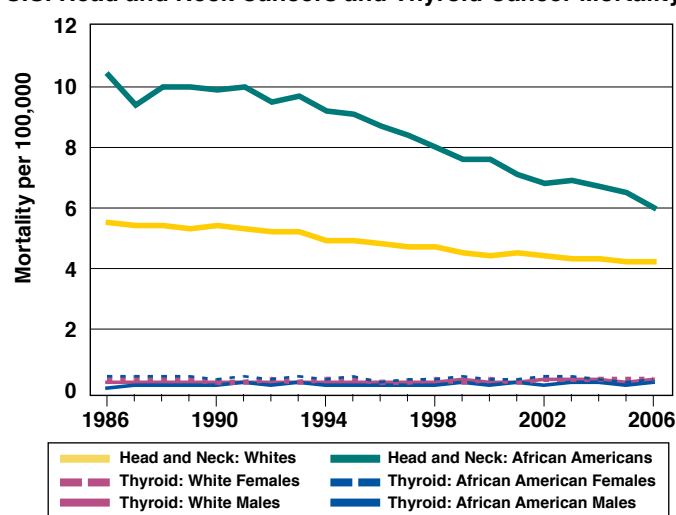
Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at <http://seer.cancer.gov/>.

¹Cancer Trends Progress Report (<http://progressreport.cancer.gov/>), in 2004 dollars, based on methods described in *Medical Care* 2002 Aug;40(8 Suppl):IV-104-17.

U.S. Head and Neck Cancers and Thyroid Cancer Incidence



U.S. Head and Neck Cancers and Thyroid Cancer Mortality



Trends in NCI Funding for Head and Neck Cancers² Research

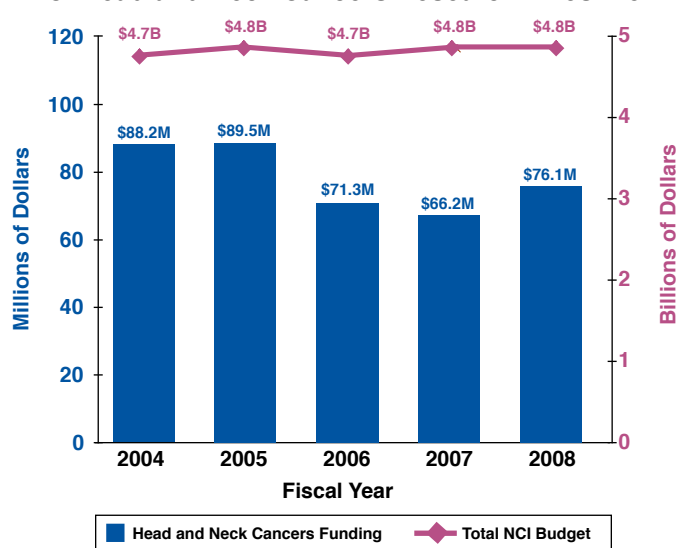
The National Cancer Institute's (NCI) investment³ in head and neck cancers research decreased from \$88.2 million in fiscal year 2004 to \$76.1 million in fiscal year 2008.

Source: NCI Office of Budget and Finance (<http://obf.cancer.gov/>).

²FY04–FY05 data include cancers of the buccal cavity, esophagus, head and neck subset, larynx, parathyroid, pharynx, salivary glands, and thyroid. FY06–FY08 data include cancers of the buccal cavity, head and neck subset, larynx, pharynx, salivary glands, thyroid, and nose/nasal passages.

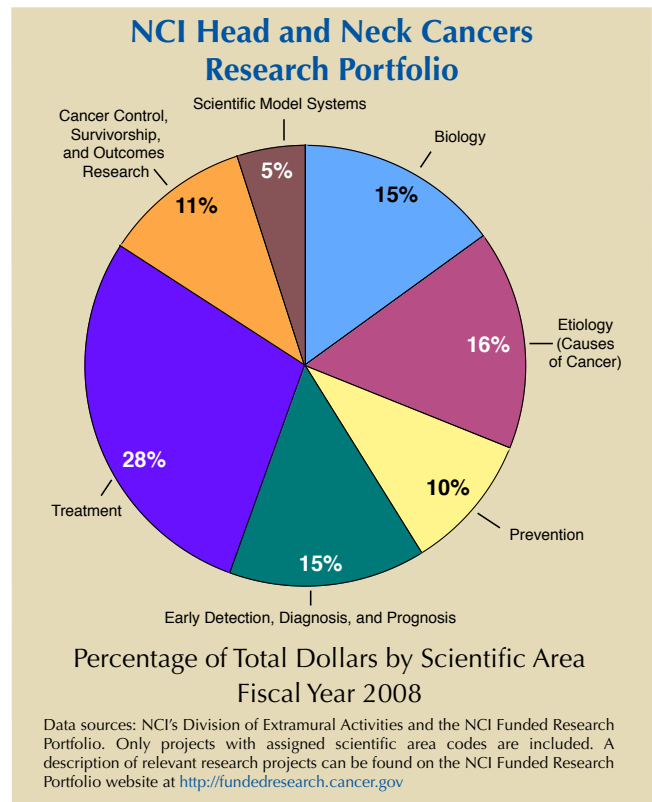
³The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health (NIH), see <http://www.nih.gov/about/>.

NCI Head and Neck Cancers Research Investment



Examples of NCI Activities Relevant to Head and Neck Cancers

- Five **Specialized Programs of Research Excellence (SPOREs)** in head and neck cancers support translational research on cancers of the upper aerodigestive tract and thyroid cancer. SPORE researchers are addressing markers of genetic susceptibility of head and neck cancers and novel therapies for treatment and prevention. <http://spores.nci.nih.gov/current/hn/index.htm>
- The **Prevention Agents Program** provides scientific and administrative oversight for chemoprevention agent development from preclinical research to early Phase I studies. The program currently supports research on three agents for potential chemoprevention of head and neck cancers. <http://prevention.cancer.gov/programs-resources/groups/cad/programs/agents>
- NCI supports the **Phase I/II Study of Vandetanib in Young Patients with Hereditary Medullary Thyroid Carcinoma**, which is determining whether the investigational agent vandetanib could be the first effective nonsurgical treatment for young patients with this cancer. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_080707/page3
- Information on treatment options for oropharyngeal cancer is available on NCI's **PDQ website**. <http://www.cancer.gov/cancerinfo/pdq/treatment/oropharyngeal/HealthProfessional>
- **Clinical trials** are actively recruiting patients with head and neck cancers to test new treatments. <http://www.cancer.gov/search/ResultsClinicalTrials.aspx?protocolsearchid=6562699>



- The **What You Need to Know About™ Oral Cancer, Thyroid Cancer, and Cancer of the Larynx** booklets contain information about possible causes, symptoms, diagnosis, and treatment options for head and neck cancers. Information specialists can also answer questions about cancer at 1-800-4-CANCER. <http://www.cancer.gov/cancertopics/wyntk/oral>, <http://www.cancer.gov/cancertopics/wyntk/thyroid>, and <http://www.cancer.gov/cancertopics/wyntk/larynx>
- The **Head and Neck Cancers Home Page** provides up-to-date information on head and neck cancers treatment, prevention, genetics, causes, screening, testing, and other topics. <http://cancer.gov/cancerinfo/types/head-and-neck>

Selected Advances in Head and Neck Cancers Research

- **Antisense DNA gene therapy targeting epidermal growth factor receptor** inside tumors was safe and effective in a phase I trial of patients with advanced squamous cell carcinoma of the head and neck. <http://www.ncbi.nlm.nih.gov/pubmed/19204206>
- Researchers discovered potential ways for **enhancing epidermal growth factor receptor-targeted therapies** for head and neck squamous cell carcinomas (HNSCC). <http://www.ncbi.nlm.nih.gov/pubmed/19421143>
- Researchers identified **two proteins that affect how well gefitinib works** in HNSCC. <http://www.ncbi.nlm.nih.gov/pubmed/19318490>
- A large U.S. study determined that **total fruit and vegetable intake is associated with a lower risk** of head and neck cancer. <http://www.ncbi.nlm.nih.gov/pubmed/18092323>